

IN THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the Application:

LISTING OF CLAIMS:

1. (Currently amended) In a computerized device, a method for obtaining content from a content-originating device, the method comprising the steps of:
  - identifying a location-path having a series of locations which leads from the computerized device to the content-originating device, wherein each location includes a set of devices, and wherein the set of devices of at least one location includes multiple devices;
  - selecting a device-path from the computerized device to the content-originating device based on the identified location-path, wherein the selected device-path includes at least one device of each location of the series of locations; and
  - acquiring the content from the content-originating device from at least one of the devices along the selected device-path; wherein the step of selecting the device-path includes the steps of:
    - forming an ordered list of devices, wherein each device of the ordered list belongs to the series of locations which leads from the computerized device to the content-originating device; and
    - deriving the device-path based on the formed ordered list of devices.
2. (Currently amended) ~~The method of claim 1~~ In a computerized device, a method for obtaining content from a content-originating device, the method comprising the steps of:

identifying a location-path having a series of locations which leads from the computerized device to the content-originating device, wherein each location includes a set of devices, and wherein the set of devices of at least one location includes multiple devices;

selecting a device-path from the computerized device to the content-originating device based on the identified location-path, wherein the selected device-path includes at least one device of each location of the series of locations; and

acquiring the content from the content-originating device from at least one of the devices along the selected device-path;

wherein the content-originating device is configured to operate as a content server for a first host domain; wherein a tree data structure, which defines a content distribution layout having an inverted-tree shape, is associated with a second host domain for distribution of content from the second host domain; and wherein the step of identifying the location-path includes the steps of:

associating the tree data structure, which defines the content distribution layout having the inverted-tree shape, with the first host domain; and

ascertaining the location-path having the series of locations which leads from the computerized device to the content-originating device based on the tree data structure.

3. (Original) The method of claim 2 wherein the set of devices of each location along the series of locations which leads from the computerized device to the content-originating device provides multiple possible device-paths from the computerized device to the content-originating device, and wherein the step of selecting the device-path includes the step of:

choosing a device of each location to construct, as the device-path, a particular one of the multiple possible device-paths from the computerized device to the content-originating device.

4. (Currently amended) ~~The method of claim 1~~ In a computerized device, a method for obtaining content from a content-originating device, the method comprising the steps of:

identifying a location-path having a series of locations which leads from the computerized device to the content-originating device, wherein each location includes a set of devices, and wherein the set of devices of at least one location includes multiple devices;

selecting a device-path from the computerized device to the content-originating device based on the identified location-path, wherein the selected device-path includes at least one device of each location of the series of locations; and

acquiring the content from the content-originating device from at least one of the devices along the selected device-path;

wherein a location of the series of locations which leads from the computerized device to the content-originating device includes a set of devices that includes the computerized device and a tree former leader device, and wherein the step of identifying the location-path includes the steps of:

sending a location-path request message from the computerized device to the tree former leader device; and

receiving, from the tree former leader device, a reply message which defines the location-path having the series of locations which leads from the computerized device to the content-originating device.

5. (Original) The method of claim 1 wherein a location of the series of locations which leads from the computerized device to the

content-originating device includes a set of devices that includes the computerized device and a content fetching leader device, wherein the selected device-path includes the content fetching leader device, and wherein the step of acquiring the content includes the steps of:

    sending a content request message from the computerized device to the content fetching leader device; and

    receiving, in response to the content request message, the content from the content fetching leader device.

Claim 6 (Canceled).

7. (Currently amended) The method of claim 1 ~~[[6]]~~ wherein the content is a live feed, and wherein the step of deriving the device-path includes the steps of:

    probing each device on the formed ordered list for responses; and  
    constructing the device-path based on the responses.

8. (Currently amended) The method of claim 1 ~~[[6]]~~ wherein the content is pre-positioned material, and wherein the step of deriving the device-path includes the steps of:

    requesting the content from a first device in the formed ordered list;  
and

    re-requesting the content from another device in the formed ordered list if the computerized device does not receive the content from the first device in the formed ordered list.

9. (Currently amended) A computerized device for obtaining content from a content-originating device, comprising:

a network interface; and

a controller coupled to the network interface, the controller being configured to:

- (i) identify a location-path having a series of locations which leads from the computerized device to the content-originating device, wherein each location includes a set of devices, and wherein the set of devices of at least one location includes multiple devices,
- (ii) select a device-path from the computerized device to the content-originating device based on the identified location-path, wherein the selected device-path includes at least one device of each location of the series of locations, and
- (iii) acquire the content from the content-originating device from at least one of the devices along the selected device-path through the network interface;

wherein the controller, in order to select device-path, is configured to:

form an ordered list of devices, wherein each device of the ordered list belongs to the series of locations which leads from the computerized device to the content-originating device; and

derive the device-path from the formed ordered list of devices.

10. (Currently amended) ~~The computerized device of claim 9~~ A computerized device for obtaining content from a content-originating device, comprising:

a network interface; and

a controller coupled to the network interface, the controller being configured to:

- (i) identify a location-path having a series of locations which leads from the computerized device to the content-originating device, wherein each location includes a set of devices, and wherein the set of devices of at least one location includes multiple devices,
- (ii) select a device-path from the computerized device to the content-originating device based on the identified location-path, wherein the selected device-path includes at least one device of each location of the series of locations, and
- (iii) acquire the content from the content-originating device from at least one of the devices along the selected device-path through the network interface;

wherein the content-originating device is configured to operate as a content server for a first host domain; wherein a tree data structure, which defines a content distribution layout having an inverted-tree shape, is associated with a second host domain for distribution of content from the second host domain; and wherein the controller, in order to identify the location-path, is configured to:

associate the tree data structure, which defines the content distribution layout having the inverted-tree shape, with the first host domain; and

ascertain the location-path having the series of locations which leads from the computerized device to the content-originating device based on the tree data structure.

11. (Original) The computerized device of claim 10 wherein the set of devices of each location along the series of locations which leads from the computerized device to the content-originating device provides multiple possible device-paths from the computerized device to the content-originating device, and wherein the controller, in order to select the device-path, is configured to:

choose a device of each location to construct, as the device-path, a particular one of the multiple possible device-paths from the computerized device to the content-originating device.

12. (Currently amended) ~~The computerized device of claim 9~~ A computerized device for obtaining content from a content-originating device, comprising:

a network interface; and

a controller coupled to the network interface, the controller being configured to:

(i) identify a location-path having a series of locations which leads from the computerized device to the content-originating device, wherein each location includes a set of devices, and wherein the set of devices of at least one location includes multiple devices,

(ii) select a device-path from the computerized device to the content-originating device based on the identified location-path, wherein the selected device-path includes at least one device of each location of the series of locations, and

(iii) acquire the content from the content-originating device from at least one of the devices along the selected device-path through the network interface;

wherein a location of the series of locations which leads from the computerized device to the content-originating device includes a set of devices that includes the computerized device and a tree former leader device, and wherein the controller, in order to identify the location-path, is configured to:

send a location-path request message from the computerized device to the tree former leader device; and

receive, from the tree former leader device, a reply message which defines the location-path having the series of locations which leads from the computerized device to the content-originating device.

13. (Original) The computerized device of claim 9 wherein a location of the series of locations which leads from the computerized device to the content-originating device includes a set of devices that includes the computerized device and a content fetching leader device, wherein the selected device-path includes the content fetching leader device, and wherein the controller, in order to acquire the content, is configured to:

send a content request message from the computerized device to the content fetching leader device; and

receive, in response to the content request message, the content from the content fetching leader device.

Claim 14 (Canceled).



15. (Currently amended) The computerized device of claim 9 [[14]] wherein the content is a live feed, and wherein the controller, in order to derive the device-path, is configured to:
- probe each device on the formed ordered list for responses; and
  - construct the device-path based on the responses.
16. (Currently amended) The computerized device of claim 9 [[14]] wherein the content is pre-positioned material, and wherein the controller, in order to derive the device-path, is configured to:
- request the content from a first device in the formed ordered list;
  - and
  - re-request the content from another device in the formed ordered list if the computerized device does not receive the content from the first device in the formed ordered list.
17. (Original) A set of computerized devices for obtaining content from a content-originating device, comprising:
- a first computerized device which is configured as a tree forming leader;
  - a second computerized device which is coupled to the first computerized device, the second computerized device being configured to:
    - (i) obtain, from the first computerized device which is configured as a tree forming leader, a communications signal that identifies a location-path having a series of locations which leads from the second computerized device to the content-originating device, wherein each location includes a set of devices, and wherein the set of devices of at least one location includes multiple devices,

- (ii) select a device-path from the second computerized device to the content-originating device based on the identified location-path, wherein the selected device-path includes at least one device of each location of the series of locations, and
  - (iii) acquire the content from the content-originating device from at least one of the devices along the selected device-path.
- 18. (Original) The set of computerized devices of claim 17, further comprising:
  - a third computerized device coupled to the second computerized device; wherein the third computerized device is configured as a content fetching leader; and wherein the second computerized device, in order to acquire the content from the content-originating device, is configured to obtain the content through the third computerized device which is configured as the content fetching leader.
- 19. (Currently amended) A set of computerized devices for obtaining content from a content-originating device, comprising:
  - a first computerized device which is configured as a content fetching leader;
  - a second computerized device which is coupled to the first computerized device, the second computerized device being configured to:
    - (i) identify a location-path having a series of locations which leads from the second computerized device to the content-originating device, wherein each location includes a set of

-12-

- devices, and wherein the set of devices of at least one location includes multiple devices,
- (ii) select a device-path from the second computerized device to the content-originating device based on the identified location-path, wherein the selected device-path includes at least one device of each location of the series of locations, and
  - (iii) acquire the content from the content-originating device through the first computerized device which is configured as the content fetching leader;

wherein the set of computerized devices reside within a content distribution network; wherein the second computerized device, when identifying the location-path having the series of locations, is configured to:

read an entry of a table having multiple entries, the multiple entries of the table including (i) domain fields having values that identify content-originating devices, (ii) server fields having sets of values identifying content servers which are configured to serve content for those content-originating devices, and (iii) tree number fields having values which identify inverted tree structures representing location-paths for distributing content from those content-originating devices through locations of the content distribution network, to enable multiple computerized devices to efficiently store common content distribution information, and

pick the location-path having the series of locations based on the read entry;

wherein the read entry includes a domain field having a value identifying the content-originating device among other content-originating devices, a server field having a set of values that identifies content servers which are configured to serve content for the content-originating device, and a tree number field having a value which identifies a tree structure representing location-paths for distributing the content from the content-originating device through locations of the content distribution network; and

wherein the selected device-path includes exactly one device from each location along the identified location-path.

20. (Currently amended) A computerized device for obtaining content from a content-originating device, comprising:
- a network interface; and
  - a controller coupled to the network interface, the controller including:
    - (i) means for identifying a location-path having a series of locations which leads from the computerized device to the content-originating device, wherein each location includes a set of devices, and wherein the set of devices of at least one location includes multiple devices,
    - (ii) means for selecting a device-path from the computerized device to the content-originating device based on the identified location-path, wherein the selected device-path includes at least one device of each location of the series of locations, and
    - (iii) means for acquiring the content from the content-originating device from at least one of the

devices along the selected device-path through the network interface;

wherein the network interface is configured to connect the computerized device to operate within a content distribution network;  
wherein the means for identifying includes:

means for reading an entry of a table having multiple entries, the multiple entries of the table including (i) domain fields having values that identify content-originating devices, (ii) server fields having sets of values identifying content servers which are configured to serve content for those content-originating devices, and (iii) tree number fields having values which identify inverted tree structures representing location-paths for distributing content from those content-originating devices through locations of the content distribution network, to enable multiple computerized devices to efficiently store common content distribution information, and  
means for picking the location-path having the series of locations based on the read entry;

wherein the read entry includes a domain field having a value identifying the content-originating device among other content-originating devices, a server field having a set of values that identifies content servers which are configured to serve content for the content-originating device, and a tree number field having a value which identifies a tree structure representing location-paths for distributing the content from the content-originating device through locations of the content distribution network; and

wherein the selected device-path includes exactly one device from each location along the identified location-path.

21. (Currently amended) A computer program product that includes a computer readable medium having instructions stored thereon for directing a computerized to obtain content from a content-originating device, such that the instructions, when carried out by the computerized device, cause the computerized device to perform the steps of:

identifying a location-path having a series of locations which leads from the computerized device to the content-originating device, wherein each location includes a set of devices, and wherein the set of devices of at least one location includes multiple devices;

selecting a device-path from the computerized device to the content-originating device based on the identified location-path, wherein the selected device-path includes at least one device of each location of the series of locations; and

acquiring the content from the content-originating device from at least one of the devices along the selected device-path;

wherein computerized device, when identifying the location path, is configured by the instructions to:

read an entry of a table having multiple entries,  
the multiple entries of the table including (i) domain  
fields having values that identify content-originating  
devices, (ii) server fields having sets of values  
identifying content servers which are configured to  
serve content for those content-originating devices,  
and (iii) tree number fields having values which  
identify inverted tree structures representing location-  
paths for distributing content from those  
content-originating devices through locations of the  
content distribution network, to enable multiple  
computerized devices to efficiently store common  
content distribution information, and

pick the location-path having the series of  
locations based on the read entry;

wherein the read entry includes a domain field having a value  
identifying the content-originating device among other content-originating  
devices, a server field having a set of values that identifies content servers  
which are configured to serve content for the content-originating device,  
and a tree number field having a value which identifies a tree structure  
representing location-paths for distributing the content from the  
content-originating device through locations of the content distribution  
network; and

wherein the selected device-path includes exactly one device from  
each location along the identified location-path.

22. (Previously Presented) The method of claim 1 wherein the computerized device resides within a content distribution network; wherein the step of identifying the location-path having the series of locations includes the step of:

reading an entry of a table having multiple entries, the multiple entries of the table including (i) domain fields having values that identify content-originating devices, (ii) server fields having sets of values identifying content servers which are configured to serve content for those content-originating devices, and (iii) tree number fields having values which identify inverted tree structures representing location-paths for distributing content from those content-originating devices through locations of the content distribution network, to enable multiple computerized devices to efficiently store common content distribution information, and

picking the location-path having the series of locations based on the read entry;

wherein the read entry includes a domain field having a value identifying the content-originating device among other content-originating devices, a server field having a set of values that identifies content servers which are configured to serve content for the content-originating device, and a tree number field having a value which identifies a tree structure representing location-paths for distributing the content from the content-originating device through locations of the content distribution network; and wherein the selected device-path includes exactly one device from each location along the identified location-path.

23. (Previously Presented) The method of claim 22 wherein the read entry has, as the set of values that identifies the content servers which are configured to serve content for the content-originating device, an ordered series of values; and wherein a first value in the ordered series of values identifies a first content server having priority to serve the content, followed by a second value in the ordered series of values identifying a second content server for serving the content when the first content server fails.
24. (Previously Presented) The computerized device of claim 9 wherein the network interface is configured to connect the computerized device to operate within a content distribution network; wherein the controller, when identifying the location-path having the series of locations, is configured to:
  - read an entry of a table having multiple entries, the multiple entries of the table including (i) domain fields having values that identify content-originating devices, (ii) server fields having sets of values identifying content servers which are configured to serve content for those content-originating devices, and (iii) tree number fields having values which



identify inverted tree structures representing location-paths for distributing content from those content-originating devices through locations of the content distribution network, to enable multiple computerized devices to efficiently store common content distribution information, and

pick the location-path having the series of locations based on the read entry;

wherein the read entry includes a domain field having a value identifying the content-originating device among other content-originating devices, a server field having a set of values that identifies content servers which are configured to serve content for the content-originating device, and a tree number field having a value which identifies a tree structure representing location-paths for distributing the content from the content-originating device through locations of the content distribution network; and  
wherein the selected device-path includes exactly one device from each location along the identified location-path.

25. (Previously Presented) The computerized device of claim 24 wherein the read entry has, as the set of values that identifies the content servers which are configured to serve content for the content-originating device, an ordered series of values; and wherein a first value in the ordered series of values identifies a first content server having priority to serve the content, followed by a second value in the ordered series of values identifying a second content server for serving the content when the first content server fails.
26. (Previously Presented) The set of computerized devices of claim 17 wherein the set of computerized devices reside within a content distribution network; wherein the second computerized device, when

obtaining the communications signal identifying the location-path having the series of locations, is configured to:

obtain an entry of a table having multiple entries, the multiple entries of the table including (i) domain fields having values that identify content-originating devices, (ii) server fields having sets of values identifying content servers which are configured to serve content for those content-originating devices, and (iii) tree number fields having values which identify inverted tree structures representing location-paths for distributing content from those content-originating devices through locations of the content distribution network, to enable multiple computerized devices to efficiently store common content distribution information, and

pick the location-path having the series of locations based on the read entry;

wherein the obtained entry includes a domain field having a value identifying the content-originating device among other content-originating devices, a server field having a set of values that identifies content servers which are configured to serve content for the content-originating device, and a tree number field having a value which identifies a tree structure representing location-paths for distributing the content from the content-originating device through locations of the content distribution network; and wherein the selected device-path includes exactly one device from each location along the identified location-path.

Claims 27-29 (Canceled).